

SubliJet IQ™

Getting Started Guide

For EPSON Stylus® Photo 1400/1410



Revision 3.0

SubliJet IQ™
Getting Started Guide
for the
EPSON Stylus® Photo 1400/1410

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- Keep out of reach of children.
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Sawgrass Technologies, Inc. Limited Warranty – QuickConnect II™ System

What Is Covered:

Defects in materials or workmanship.

Length of Warranty Coverage:

The warranty coverage for the QuickConnect is **one year from date of purchase**. Any QuickConnect not purchased from Authorized Sawgrass Resellers is not covered.

How to get service:

Please contact Sawgrass Technologies Technical Support at 888-253-1679 or an Authorized Sawgrass Reseller. A technical support representative will troubleshoot the issue and provide instructions on how to get a replacement if necessary.

What we will do:

Provide you with a new, or at our option, a refurbished QuickConnect unit. Alternatively, at our option, we may refund the purchase price. The exchange is under warranty for the remainder of the original products' warranty period or 90 days, whichever is longer. The replacement will be shipped to you via Ground shipment. Any rush shipments will be freight prepaid.

What your warranty does not cover:

Damage from misuse or neglect.

Damage caused by use outside of Sawgrass Technologies recommendations.

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Introduction

Congratulations on your purchase of the SubliJet Ink System with SubliJet IQ™ digital transfer inks. This system for the EPSON Stylus Photo 1400/1410 is the latest advancement from Sawgrass Technologies, Inc., a leader in the development of digitally driven color transfer technologies and related products.

Your SubliJet Ink System includes: SubliJet IQ™ inks, the QuickConnect II™ ink delivery system, and PowerDriver1400/1410 IQ color matching software. This revolutionary, comprehensive system takes sublimation to the professional level, allowing users to create perfect transfers with minimal effort. With true six-color printing, the SubliJet IQ System increases color gamut, creates noticeably smoother gradient transitions, captures finer detail and adds color depth. The Light Cyan and Light Magenta ink colors create the ultimate photo advantage with more realistic flesh tones and improved image quality.

With this system, your printed images can be transferred onto any product designed to accept sublimation dyes including: ceramic, metal, tiles, mylar, polyester fabric, performance wear, TEC Film®, TEC Tile®, UniSub®, and Hanes Soft L'Ink® T-shirts, resulting in an attractive, durable product. Your imagination is the limit for producing brilliant, near photo-quality images on caps, clipboards, clocks, mugs, mousepads, plaques, puzzles, synthetic T-shirts, and more. SubliJet IQ™ is ideal for markets that personalize, customize or create short-run output.

This document contains information for using SubliJet IQ™ inks and helpful tips are also provided for getting the best results from your transfers. The information provided pertains only to the use of SubliJet IQ™ in your EPSON Stylus Photo 1400/1410 printer. If you have questions about the operation of your EPSON printer, refer to the *EPSON Stylus Photo 1400/1410 Printer User's Guide*.

Technical support is available from your Authorized SubliJet reseller or directly from Sawgrass Technologies, Inc. See the section entitled *Technical Support* for additional information.

We at Sawgrass strive to provide you with the tools to make the sublimation process easy to learn and simple to master. We hope you will find that the tools we have developed will make your years in the sublimation business fun and profitable. Please feel free to contact us with your feedback about our products. For additional information on our other products, visit our web site at www.sawgrassink.com.

Thank you and enjoy your SubliJet Ink System.

About this Document

This document contains descriptions and procedures for using SubliJet IQ inks, along with additional information for getting the best results from your transfers.

The documentation provided pertains only to the use of SubliJet IQ™ inks in your EPSON Stylus Photo 1400/1410 ink jet printer. To assist you in the overall setup process, references are made back to the *EPSON Stylus Photo 1400/1410 Printer Basics Guide* for instructions.

To help point out important information, specific instructions, and helpful tips look for the following symbols:



Indicates **Must-Do** items, including warnings and important guidelines. These must be followed to prevent damage to your printer.



Indicates useful tips for printing and sublimation.



1400/1410 BULK INK SYSTEM INSTALLATION INSTRUCTIONS



Read Me

Before you install the SubliJet bulk ink system, you should set up the Epson 1400/1410 printer with the Epson supplied inks and driver. Conduct a nozzle check to make sure that the system is working properly. Record the alpha-numerical value from the nozzle check (on far left side of the page). This is your firmware number which will be needed later on in the SubliJet ink profile installation. Once this is completed you can begin the SubliJet installation process. **Note: Please remove the Epson cartridges before moving to step number one.**

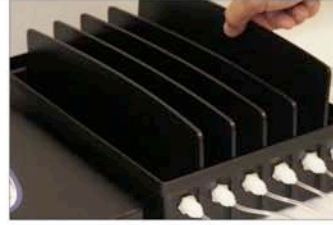


Please read this document thoroughly before installing the system to prevent voiding your warranty.

- Check to ensure you have all components shown in the picture:
1. Ink Cartridges + Tubes
 2. Tubing Clip
 3. Tubing Clip Insert
 4. Side Clip
 5. 6x Ink Bags (Supplied separately from QuickConnect II system)
 6. Priming Syringes - one for each color
 7. Ink Box with 5 plastic dividers
 8. PowerDriver1400/1410 IQ Software
 9. Color Bar for QuickConnect box



1. Place the Quick Connect box on a flat surface.



2. Insert the dividers into the slits on the inside of the QuickConnect box.



3. Remove the soft protective cap from the quick connect valve on each ink bag.



4. Connect the ink bags to the Quick Connect box by depressing the metal tap on the inside of the box and inserting the plastic valve of each ink bag into place. Release the metal tap to lock the ink bag into place. Ink will start to flow into the cartridges.



1400/1410 PRINTER SETUP INSTRUCTIONS



1. Place the printer on a level surface next to the bulk ink system.



2. Turn the printer on and press the cartridge replacement button.



3. The cartridge bay will shift into the remove position so that the cartridge lid can be taken off.



4. To remove one side of the cartridge lid, you must use a screwdriver to pry the latch free.



5. To remove the other side of the cartridge lid, pull the cartridge up and break the tab.



6. Once the cartridge lid is removed, slide the cartridge bay over to the left side as shown above so that the ink cartridges can be installed.



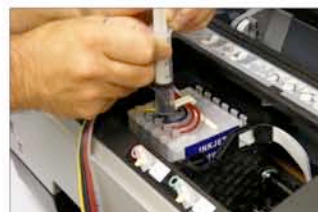
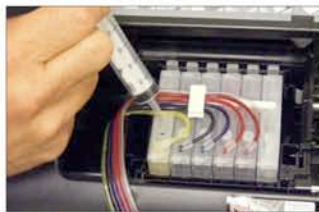
1400/1410 BULK INK SYSTEM INSTALLATION INSTRUCTIONS



7. Push the cartridges into the cartridge bay until they snap into place. Some pressure may be needed to ensure proper placement in the cartridge bay holder.



8. It is recommended to manually prime the ink cartridges. This is accomplished by carefully removing the small rubber stopper from the top of each ink cartridge. **Be careful not to lose the stoppers as they will need to be reinstalled for the cartridge to work properly.**



9. Depress the syringe plunger all the way to remove all of the air from the syringe. Firmly insert the tip of syringe into the stopper hole on the top of the ink cartridge as shown above. Slowly draw out the plunger. Ink will begin to flow into the cartridge. Remove the syringe tip once the ink has started to flow into the syringe. Replace the plastic stopper. (Note - It can take up to a minute to fill each ink cartridge. Repeat the priming instructions for all the remaining ink cartridges). **Rinse the syringes with water and store in a closed plastic bag for when you need to replace bulk ink bags.**



10. Remove the adhesive tab from the tube clip crossbar and place it on the printer over the 3rd setup graphic from the right.



11. Place the side clip on the printer so that it is even with the ink tubing coming from the cartridge bay.



12. Place the top of the side clip over the tubing to secure it to the printer.



13. Press the cartridge replacement button to send the carriage back to the starting point. It may take up to a minute for the printer to cycle through it's set up. This is complete when the on/off switch shows a non-blinking green light.



Congratulations! You have successfully installed a 1400/1410 Bulk Ink System.

NEXT STEPS:

- Perform a nozzle check from the PowerDriver utility. A few cleanings may be necessary to prime the system. Do not perform excessive cleanings. No more than three cleaning cycles should be necessary to prime the system and obtain a good nozzle check.
- Insert the PowerDriver 1400/1410 IQ driver and follow the on-screen instructions.

PLEASE NOTE:

- During printing you must either leave the printer lid open or remove the printer lid entirely.
- Do not raise the ink box higher than the printer.

Tips for Using the QuickConnect II™ System

Check the support tube connections periodically.

Ensure the support arm is securely attached and not drooping. If the support arm droops too low, the tubing could scrape the bottom of the printer.

Check the ink level in your ink bags periodically.

As the bags empty, they flatten in appearance. Before beginning a large print job, check the ink bags to ensure enough ink is available to finish the job.

**Tip****How to remove the QuickConnect II™ system from the printer:**

The bulk ink cartridges sit tightly inside the printer. To remove them, hold the cartridges firmly in one hand and rock them gently back and forth until they become loose. Lift them gently out of the printer. The cartridges may drip slightly when removed from the printer. Keep the cartridges above the level of the ink bags until you are able to plug the exit holes with electrical tape. Please note the exit port area must be perfectly dry or the tape won't stick.

Selecting Paper

For information on selecting the appropriate paper to use with your SubliJet IQ™ inks, please check our website at <http://www.sawgrassink.com> or call your authorized SubliJet reseller. While the use of copy paper or other inkjet paper will not harm your printer, the transferred results may be light, splotchy, or uneven. Some papers may even stick to the surface or leave a visible residue.

Heat Transfer Instructions

Because you can print on a variety of surfaces, you need to take all variables of the surface into account when selecting time, temperature, and pressure. Some of the variables are:

- thickness of surface,
- how fast the surface absorbs heat,
- coatings used on the material to create a receptive surface for sublimation inks (ceramics, metals, etc.),
- accuracy of heat press (time, temperature, and pressure).

The information listed below are only guidelines. Due to the differences in heat presses and the various materials you will be printing on, it is not possible to give absolute figures. You should check with your supplier for specific heat transfer instructions or experiment to find your own preferred settings.

SURFACE	TRANSFER TIME SUBLIJET	TRANSFER TIME SUBLIJET IQ	TEMP	PRESSURE	REMARKS
CERAMIC	150-210 seconds	150-210 seconds	350-400°F	40 psi	Time varies with press, use green tile mat for ceramic tile
FR PLASTIC	33 seconds	75-80 seconds	400°F	40 psi	Remove Plastic
METAL (Other) White, Silver, Gold	40 seconds	60 seconds	375°F - 400°F	40 psi	Time varies with metal manufacturer (<i>Contact your reseller for correct time and temperature</i>) Place absorbent sheet on bottom plate of heat press. Then place transfer paper face up on top of the absorbent. Next place the substrate face down on top of the transfer paper. <i>Remove paper from substrate immediately after transferring for best results.</i>
METAL (Universal Woods)	40 seconds	60 seconds	400°F	40 psi	Use absorbent, remove plastic
MOUSEPADS	25 seconds	45 seconds	400°F	40 psi	
POLYESTER FABRIC & PERFORMANCE APPAREL	25 seconds	45 seconds	400°F	40 psi	
SOFT L'INK™	25 seconds	35 seconds	400°F	40 psi	Press for 5 secs to eliminate moisture, use Teflon sheet between sides of shirt to prevent "blow through"
TEC FILM	210 seconds	210 seconds	350°F	40 psi	
UNISUB™ PRODUCTS	75 seconds	75-85 seconds	400°F	40 psi	Remove Plastic



User Guide

For the Epson Photo Stylus 1400/1410

For distribution with SubliJet IQ® only
NOT FOR RESALE

Rev 1.0

Introduction

Using PowerDriver 1400/1410 IQ

SubliJet digital printing systems are comprised of a few key tools to ensure high quality output each time you print with SubliJet. PowerDriver 1400/1410 IQ color management software is one of those tools.

PowerDriver 1400/1410 IQ color management software is a professional grade color management program that provides SubliJet users with the necessary tools to ensure colors print right the first time. PowerDriver 1400/1410 IQ software is available for all major Windows based operating systems.

PowerDriver 1400/1410 IQ software and profiles are intended to give you simple, easy to use color management tools to take the guesswork out of sublimation printing. With the click of your mouse you can automatically optimize colors for popular substrates like Unisub™, Soft L'ink®, ceramics, metal, and many others. This is a valuable tool that saves you time, money, and limits your need for costly sampling trying to get the job right.

PowerDriver 1400/1410 IQ also comes standard with the ColorSure palette matching system. The ColorSure Palette is absolutely the best way to achieve spot color accuracy in sublimation transfers. The palette includes more than 170 colors that, when loaded into your graphic design software, allows you to fill solid portions of artwork with a color from the palette, thus knowing how it will look once transferred. With the help of the ColorSure Palette, you will successfully choose the correct colors, whether you are matching colors for a custom order or selecting colors for new artwork.

PowerDriver is the most advanced color management software available on the market for digital transfer systems. This software was developed specifically for desktop sublimation systems; you will discover enhanced functionality as well as a new level of color output when PowerDriver 1400/1410 IQ is used. Used in conjunction with SubliJet digital transfer inks you and your customers will truly experience the next generation in digital color!

PowerDriver 1400/1410 IQ® System Requirements

Minimum Hardware:

*Pentium 4 – 2.0GHz or Athlon XP 2000+ Processor
512 MB System Memory*

Recommended Hardware:

*Pentium 4 – 3.0GHz or Athlon XP 2500+ Processor
1 GB System Memory*

Required Operating System:

Microsoft Windows 2000 / XP/Vista

Setup Instructions

Product Overview

PowerDriver is color management software that has been written as a Windows printer driver. It is designed to work with Epson ink-jet printers and Sawgrass sublimation ink. The installation program will **automatically** install Sawgrass color management software, the Sawgrass PowerDriver 1400/1410 IQ printer driver software, and ColorSure tools and utilities. For instructions on installing PowerDriver 1400/1410 IQ see the PowerDriver 1400/1410 IQ *Step by Step Installation* documentation starting on page 11.

Quick Start

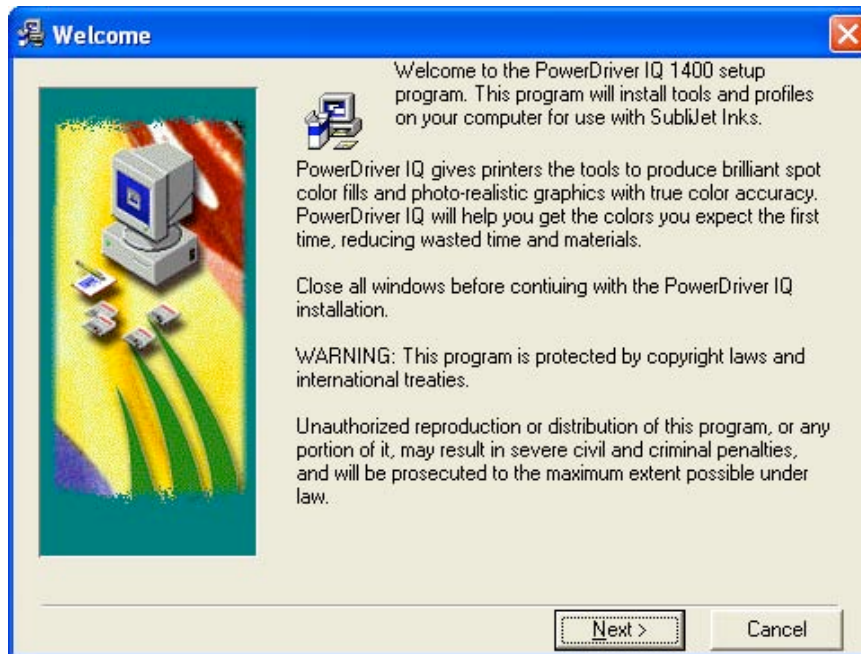
1. Unpack and setup printer as described in the Epson manual.
2. Install the Epson printer driver and verify printer operation.
3. Insert the PowerDriver CD into the CDROM drive on the computer and install the PowerDriver 1400/1410 IQ. Follow the on-screen instructions.

PowerDriver 1400/1410 IQ® Step by Step Installation

To get started printing as soon as possible, these are the Sawgrass recommended steps to perform while setting up your sublimation printer driver software.

1. Setup the printer according to the Epson instructions.
2. Install your SubliJet IQ quick-connect ink system according to the instructions in the *Quick Connect II™ Set-up for the Epson 1400/1410* section of this book.
3. Insert the PowerDriver 1400/1410 IQ CD into your CDROM drive. The installation program should run automatically. (If the program does not automatically run, click Start, Run. Browse to your CDROM drive and click on Setup).
4. The Welcome screen is displayed next. Click Next to proceed.

Note: If you are using the Epson Stylus 1410 printer, the screen shots will list 1410 instead of 1400 as shown.



5. The License Agreement is displayed next. Select the appropriate choice for acceptance of the Licensing Agreement to continue.

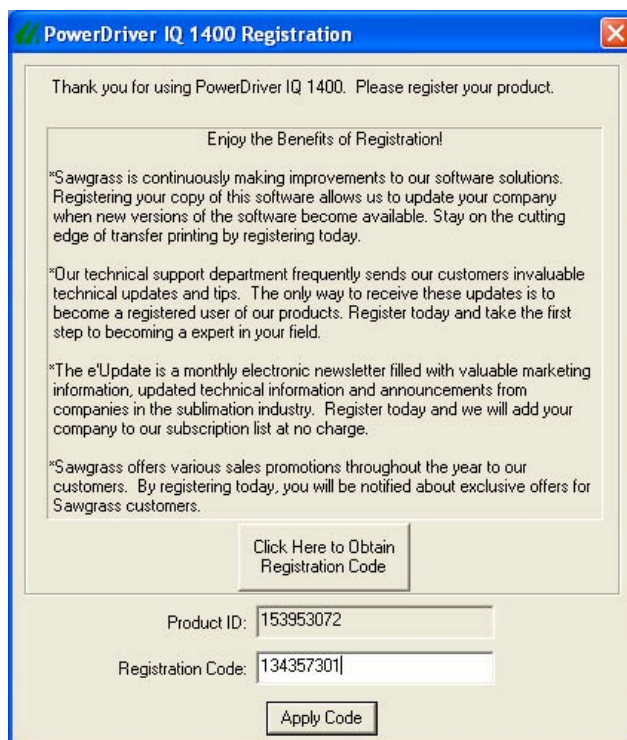


6. If you have not previously registered the PowerDriver 1400/1410 IQ, you will be prompted to do so. Registering is the only way to take full advantage of the advanced features in PowerDriver 1400/1410 IQ. If you choose to register now, the registration screen will be displayed. To obtain your registration code you may do so in one of the following ways:
- (A) Register on-line and receive your registration code via e-mail.
 - (B) Call Sawgrass Technologies, Inc. directly (888) 253-1679 and obtain your code over the phone.
 - (C) Send a fax and receive your registration code by fax.

If you choose to register later, select Register Later and click Next to proceed with the installation. You will have five days to use the program before registration will be required for continued usage of the software. After five days, if you attempt to print using the PowerDriver 1400/1410 IQ software, you will be prompted to register.

To register, you will use your Product ID (displayed on the registration screen) to obtain a Registration code. You will need a separate registration code for every machine on which PowerDriver 1400/1410 IQ is installed. On the Registration page (see image on the next page) Click on the button labeled "Click Here to obtain registration code". This will open the product registration web page.

Complete the requested information and **click** Continue.

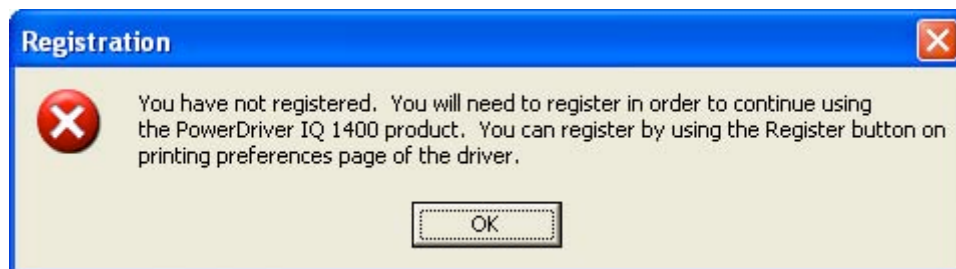


7. Once the registration information has been completed and sent a “Thank You” message will appear. An email will be sent to the address specified. Retrieve the registration email from your inbox and make note of the registration code given. Toggle back to the **PowerDriver IQ 1400/1410 Registration** screen and enter this number in the registration Code box at the bottom of the page.

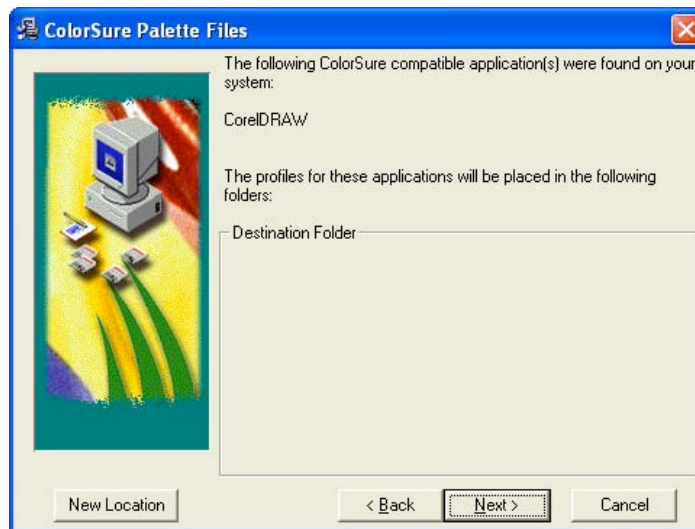
Click “Apply Code”. The following screen will appear indicating that you have successfully registered your driver software. Click “OK” to continue the installation process.



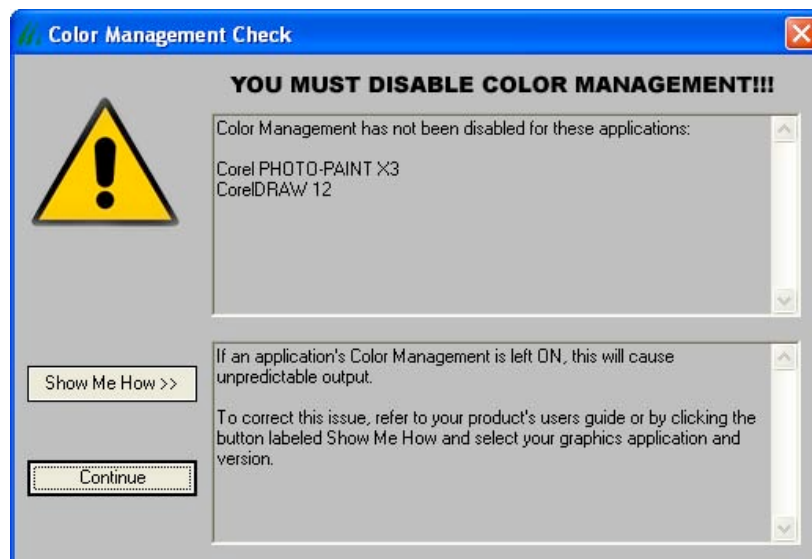
8. If you decide to register later and continue using the driver during the initial five day pre-registration requirement period your system will generate the following pop-up screen. Go to the printing preferences page of the PowerDriver 1400/1410 IQ driver and click on “Register”



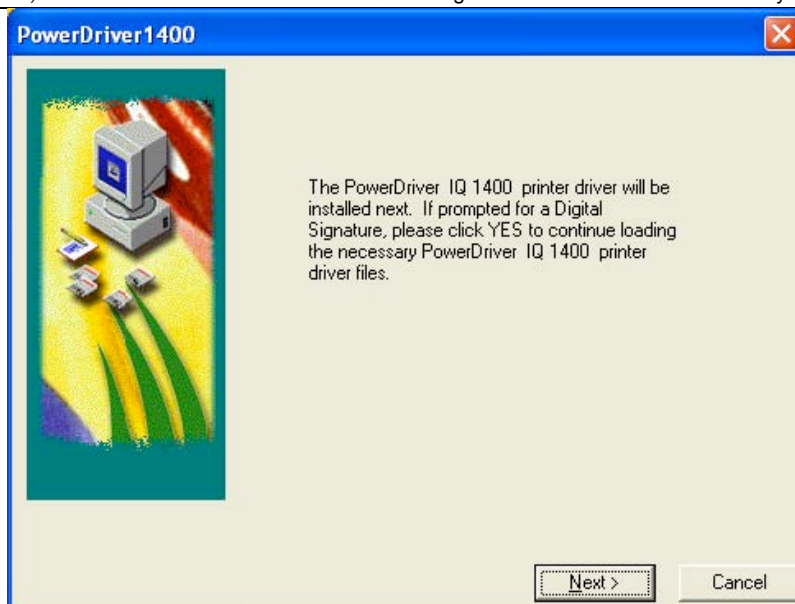
9. Sawgrass Technologies, Inc. provides ColorSure color palettes for use with Corel and Adobe. (Check the ColorSure section of the manual for information on how to use ColorSure to get perfect spot colors). If Setup detects either of these applications on your system, the palette files will be placed in the appropriate folder indicated in the Destination Folder box. Click Next to proceed with the installation.



10. The Color Management Check screen will appear. Click the "Continue" button on the left side of the screen after you have disabled the Color Management feature of the Corel or Adobe Graphic software. Click "Show Me How" if you need instructions on how to accomplish this.



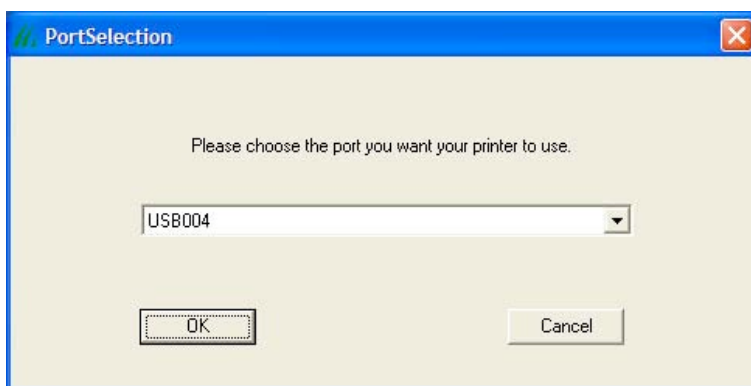
11. The PowerDriver 1400/1410 IQ installation program will attempt to use plug-n-play to determine the port that the printer is connected to, click Next to continue. **Note: Cancel any 'Found New Hardware' wizards that may start during this process, do NOT cancel any file copy process however.**



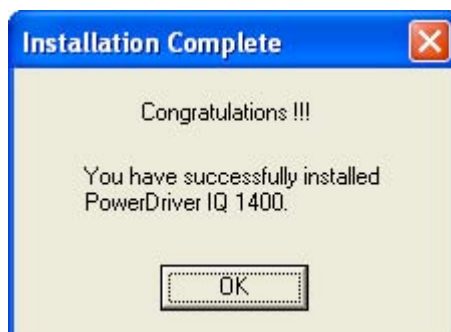
12. If you see the screen below, click Continue Anyway to proceed with the installation.



13. If the installation cannot find the printer port then you will be given the opportunity to choose the port you want to use for the product you are installing.



14. Once the installation has completed, the Installation Complete screen will display. Click OK to end the installation.



Using PowerDriver 1400/1410 IQ in Windows 2000 / XP

PowerDriver 1400/1410 IQ is simple to use. Whenever you have SubliJet inks in your printer, you should print using PowerDriver 1400/1410 IQ. **Do not** print to your Epson printer with the Epson printer driver since printing with the Epson driver will not give you the benefit of color management.

Quick Start Example (Corel Draw)

- 1) Open/Create an image in Corel Draw.
- 2) Select print from the File menu.
- 3) Select the PowerDriver 1400/1410 IQ printer.
- 4) Use the properties button to access and set the Substrate and Resolution required.
- 5) Click Print.

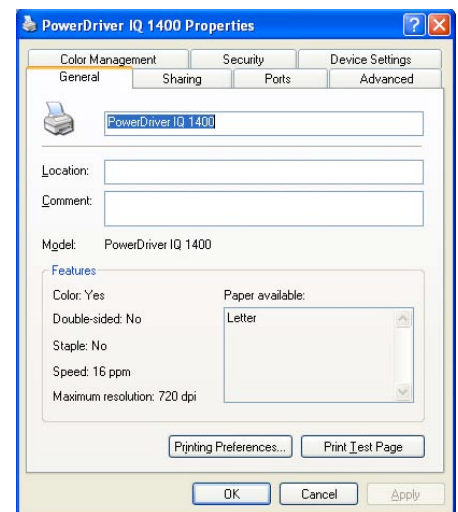
Setting PowerDriver 1400/1410 IQ printer properties

To configure PowerDriver 1400/1410 IQ for the correct substrate, you must display its printer properties.

There are two ways to display the printer properties:

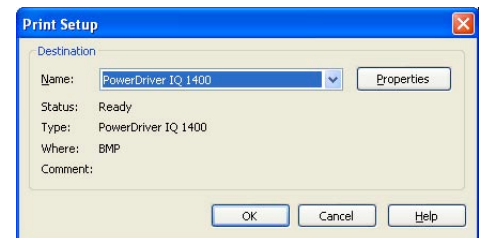
From the Windows Desktop:

1. Click on Start> Printers and Faxes.
2. Right-click on your PowerDriver printer.
3. Select *Properties* from the pop-up menu.
4. Select the *Printing Preferences* button.



From an Application:

1. Select File, Print Setup.
2. Choose the PowerDriver 1400/1410 IQ printer from the list of printers.
3. Click the Properties button.

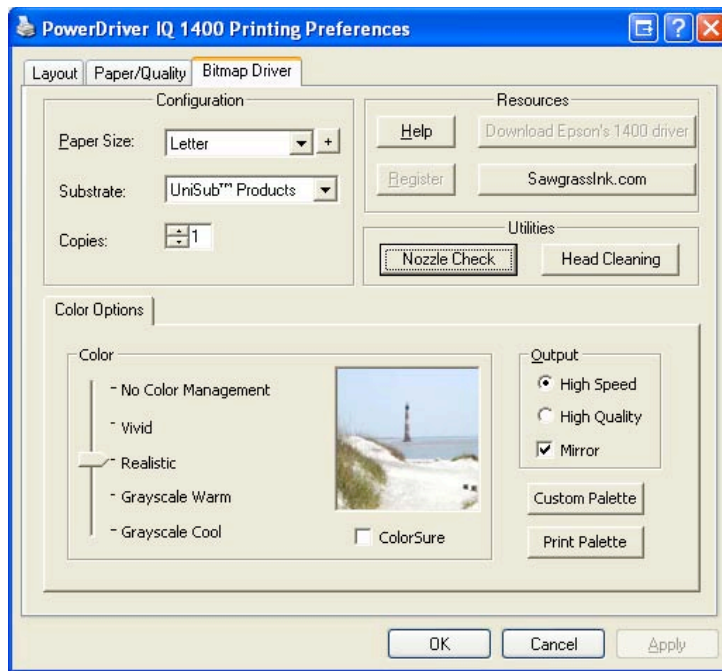


PowerDriver 1400/1410 IQ Properties Overview

The following figure shows the printer properties for a registered version of PowerDriver 1400/1410 IQ .

There are three main property groups;

1. **Configuration** – Set Paper, Transfer Substrate, and Copy Count
2. **Color Options** – Color management control options.
3. **Resources** – Utilities for printer maintenance, online help and product registration.



PowerDriver 1400/1410 IQ Printing Preferences Property Page

Group 1 – Configuration

Paper Size – From the drop down list, select the paper size you wish to use.

Substrate – From the drop down list, select the type of material to which you will be transferring your printed image. It is important to choose the correct substrate. PowerDriver's color management is optimized for each different substrate.

Copies – Sets the copy count for the number of prints to be made.

Group 2 - Color Options

Overview

This group of tabs gives you access to all of the color management controls available in PowerDriver 1400/1410 IQ. Utilizing the power of the Epson 1400/1410 driver technology, the PowerDriver 1400/1410 IQ interprets bitmap and vector elements in a similar manner.

Vector and Bitmap Explanation

Bitmaps are a grid of pixels. Bitmaps come from digital cameras, scanners, and photo CDs. Bitmaps can also be created in applications like Corel PhotoPaint or Adobe PhotoShop. Bitmaps have file extensions like GIF, JPG, BMP, and TIF. Vector components consist of shapes, curves, lines, and text. They are created in programs such as CorelDraw and Adobe Illustrator. Higher end programs like CorelDraw can combine Vector and Bitmaps into a single image. The PowerDriver 1400/1410 IQ will color correct all bitmaps files and vector components as bitmap images.

Bitmap Options

- **No Color Management** – To unleash the power of the PowerDriver 1400/1410 IQ software the color management will need to be turned off (over-ridden) in the Graphic Software. (instructions on how to do this are provided in Appendix A). This facilitates optimum color management of SubliJet inks. By selecting the **No Color Management** option, all color management will have to be accomplished using the Graphic Design software.
- **Vivid** – This setting is most suitable for images where it is important that the colors are vivid and contrast well with each other. Artwork, graphics, logos, and text, as well as photographs of landscapes or still life are good candidates for the Vivid setting.
- **Realistic** - This setting is most suitable for reproducing skin tones in scanned photographs and is most suitable for reproducing life-like clipart.
- **ColorSure Checkbox** - ColorSure is used to replace specific colors in your image with a spot color chosen from the ColorSure palette. This resulting spot color enhancement is not affected by color setting. A ColorSure spot color will ALWAYS print the same. See Appendix B for an overview of ColorSure.
- **Grayscale Warm** – This setting is most suitable for monochromatic photographic images with 'warmer' grayscale colors.
- **Grayscale Cool** – This setting is most suitable for monochromatic photographic images with 'cooler' grayscale colors.

ColorSure Options

- **Print Palette Button** – Prints the ColorSure palette for the selected substrate. ColorSure is a method for reproducing exact spot colors. The two main components are: 1) the transferred palette and 2) the CorelDraw, Corel PhotoPaint, and Adobe swatches. For a complete description on how to use ColorSure to get perfect spot colors, see appendix B.
- **Custom Palette Button** – This button launches the Custom Palette utility, which enables you to add, edit, import, and export custom colors to the ColorSure palette. If you need to precisely match a specific color, the Color Finder tool makes this a breeze. For a complete description on how to use the Custom Palette, see appendix B.

Output Options

- **Mirror** – When you transfer an image, the result will be “flipped” when compared to the printed image. In order for your transfers to come out correctly, you must flip the image before transferring.
- **High Speed** – If the printer supports multiple resolutions, choose the most appropriate setting. For soft substrates, the High Speed option works well.
- **High Quality** – If the printer supports multiple resolutions, choose the most appropriate setting. For hard substrates, choose the High Quality option.

Group 3 – Resources

- **Print Nozzle Check Utility** – Click this button to print a nozzle check pattern. If any of the nozzle check patterns are incomplete, then perform a print head cleaning cycle.
- **Perform Head Cleaning** - Performs a printer head cleaning, after which a Print Nozzle Check should be performed to verify that the heads are completely cleaned. Repeat the Head Cleaning until a complete nozzle check pattern is produced.
- **Help** – This will display a help dialog box for an easy overview of the PowerDriver 1400/1410 IQ driver functions and settings. Also contains a link to the Sawgrass Technologies website.
- **Register** – If the PowerDriver 1400/1410 IQ product has not been registered, click this button for instructions on how to register the product and unlock all the features.
- **Sawgrassink.com** – Links directly to the Sawgrass Technologies website for additional resources.

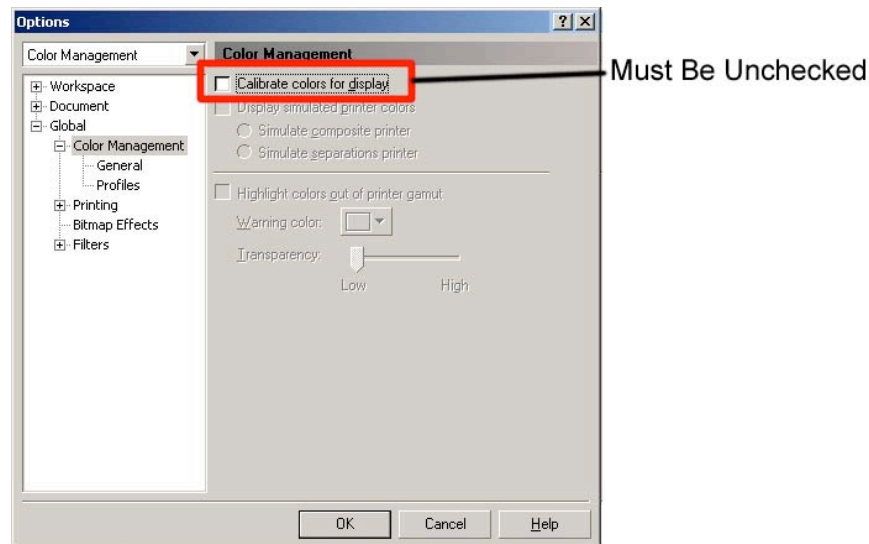
Appendices

Appendix A: Over-riding Graphic Software Color Management

PowerDriver provides a complete color management solution for your SubliJet printing. ***It is extremely important that you turn off any color matching features associated with your design software.*** An explanation of how to disable print-time color management in several popular design packages follows:

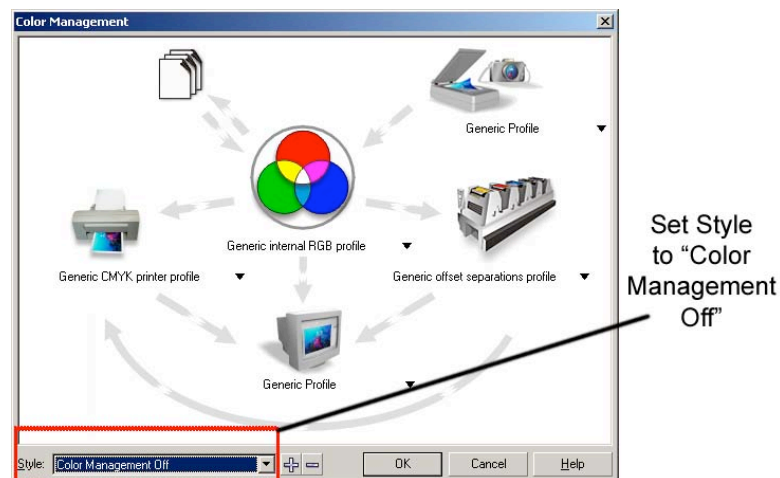
CorelDraw™ version 9

- Create a new graphic.
- From the main menu choose Tools, Color Management. The Color Management dialog box is displayed.
- In the Color Management window (see figure below), UNCHECK the Calibrate colors for display box.



CorelDraw™ version 10, 11 and 12

- Create a new graphic.
- From the main menu choose Tools, Color Management. In the Color Management window (see figure below), set the Style option to Color Management Off.

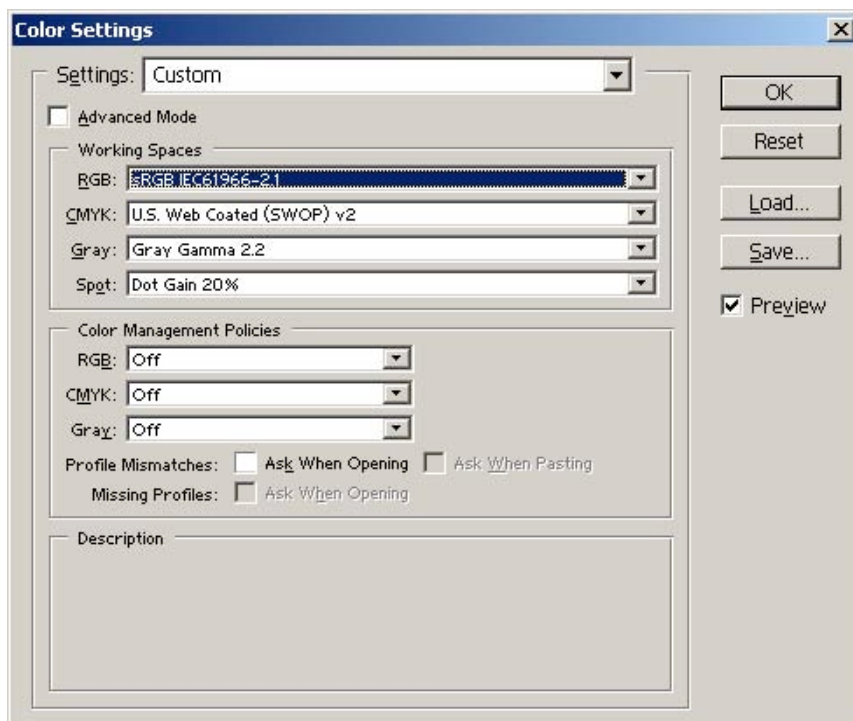


Adobe Photoshop™ 6

Color Setup

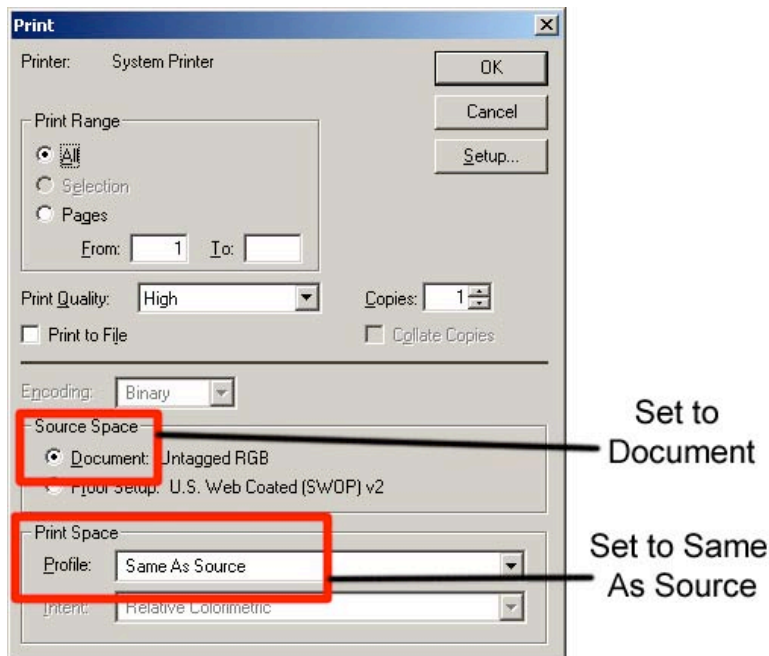
From the main menu choose Edit, Color Settings. On the Color Settings dialog box:

- Set all Color Management Policies to Off
- Uncheck Profile Mismatches
- Uncheck Ask When Opening.



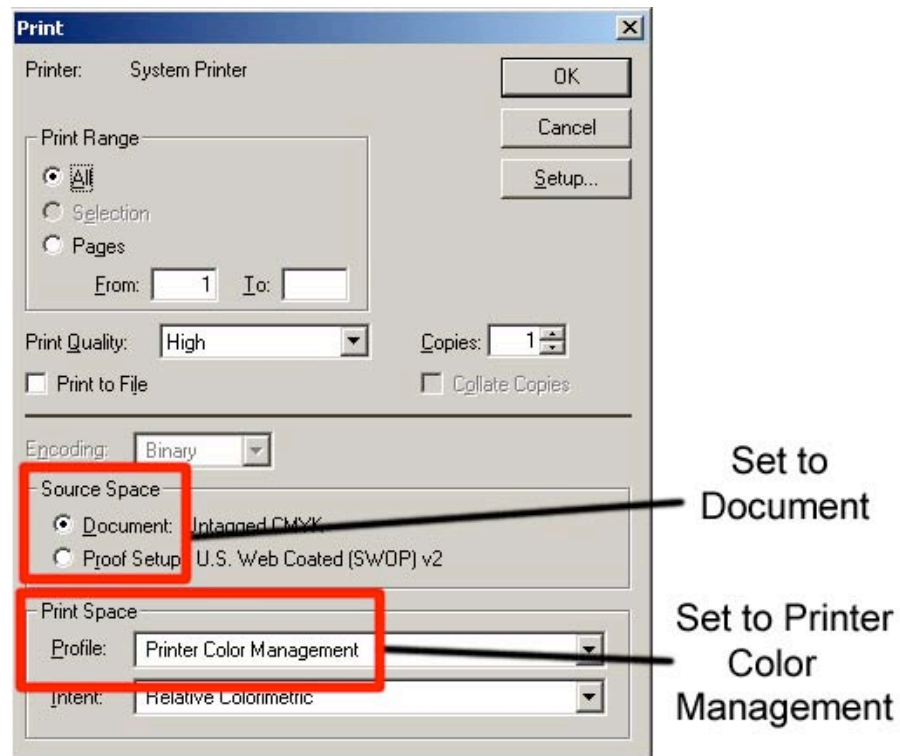
To Print RGB Graphics

Choose File, Print, and set the options as described below:



To Print CMYK Graphics

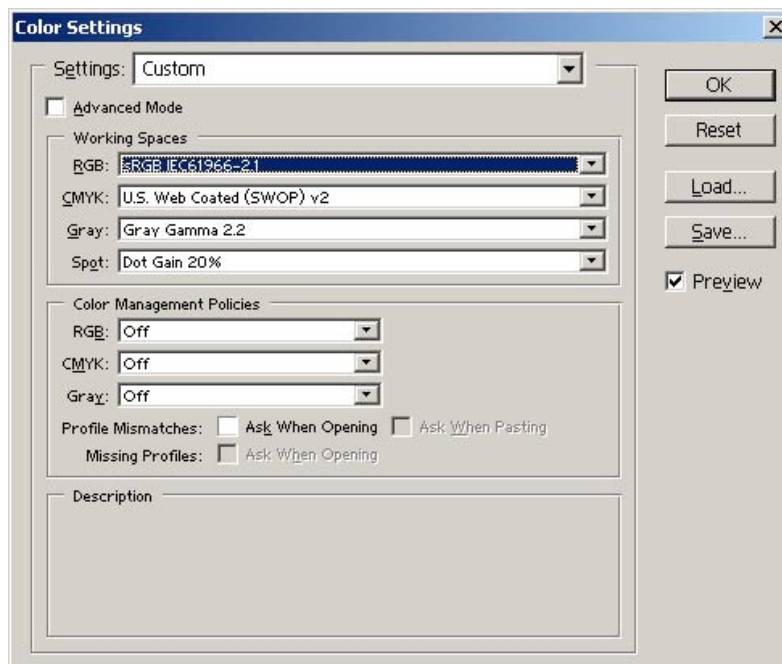
Choose File, Print, and set the options as described below:



Adobe Photoshop™ 7 and CS

Color Setup

From the main menu choose Edit, Color Settings. On the Color Settings dialog box, turn all Color Management Policies off. Turn off Profile Mismatches.

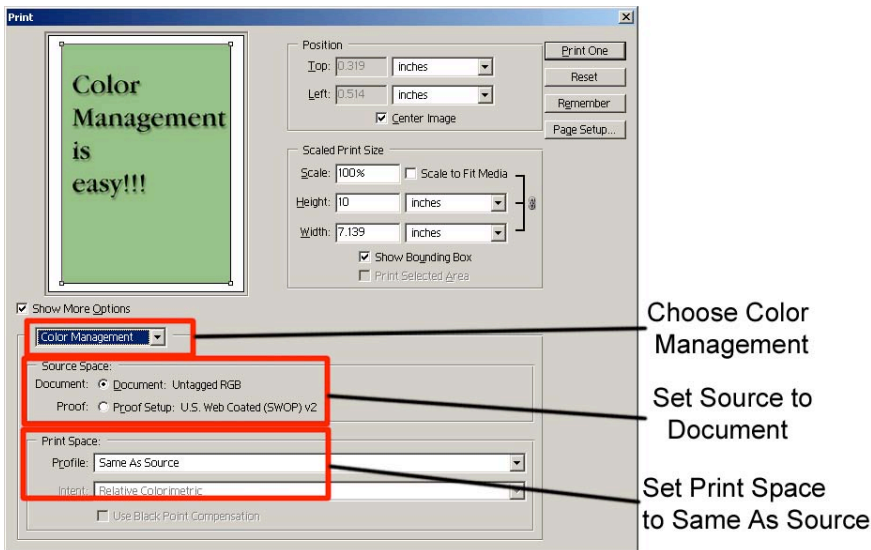


To Print:

Always select File, Print with Preview. On the print dialog page, set the options as described below:

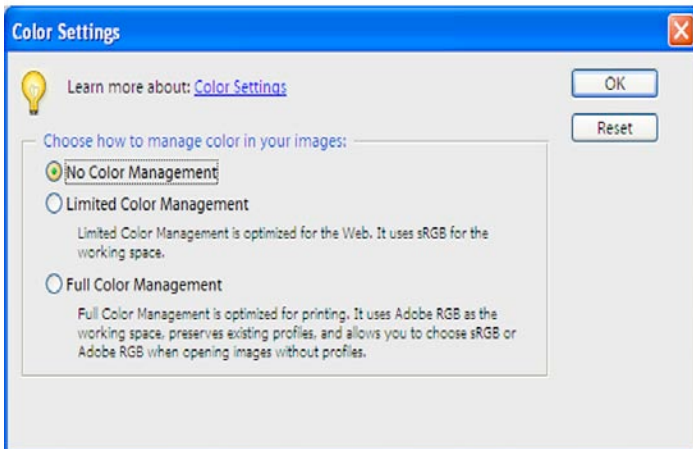
- Check Show More Options
- Choose Color Management
- Choose Document as Source Space
- Choose Same as Source for Print Space

From the Color Management drop option list, make sure that Source is set to “Document” and Print Space is set to “Same As Source”.



Adobe Photoshop Elements 3.0/4.0/5.0

Select **Edit** and then **Color Settings** from the top drop down menu bar. Select **No Color Management**. Click **Ok**.



Appendix B: Using ColorSure™ and Custom Palette in PowerDriver 1400/1410 IQ®

I. Introduction

ColorSure is a method for reproducing exact spot colors. There are four main components of the ColorSure System: 1.) the transferred palette; 2.) Color Finder; 3.) Custom Palette; and 4.) the CorelDRAW and Adobe application palettes / swatches.

1. **ColorSure Palette:** This is your main color palette that includes a wide variety of 190 commonly used colors. To supplement this, we have also included the ColorSure palette which consists of 170 additional colors. The palette is meant to take advantage of the expanded color gamut available due to the addition of light cyan and light magenta inks.
2. **Color Finder:** If a color you need is not on the ColorSure palette, the Color Finder tool allows you to locate the exact custom color you are looking for.
3. **Custom Palette:** With the Custom Palette feature, you can add new custom colors to the existing ColorSure Palette mentioned in step 1.
4. **Application Palettes:** You can add your Color Finder colors to an existing application palette, or you can add multiple custom colors to new, custom palette files (*.cpl, *.acl, etc.).

II. Printing the ColorSure Palette

The first step you will want to take is to print and transfer your ColorSure palette to the various substrates you will be using. Most likely you will have customers who desire precise colors. Having your ColorSure palette available allows the customer to choose the color from the palette that is the closest match to what they want, and this gives you a starting point for finding the exact custom color that will match your customer's needs.

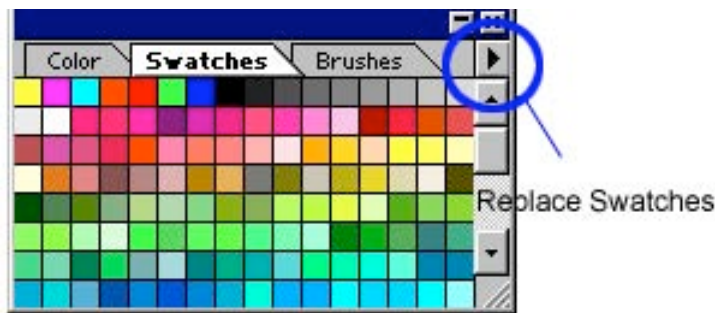
To print the ColorSure palette, follow the steps below:

- Click 'Start' and navigate to the 'Printers and Faxes' folder. Right-click on your PowerDriver icon and select 'Printing Preferences' from the menu. You may also open PowerDriver from within an Adobe or Corel program by going to File, Print, and choosing the PowerDriver printer from the pull-down menu. Click Properties to open PowerDriver.
- Choose the paper size you will be printing the palette to (Letter, Legal, etc)
- Choose the substrate that you will be transferring the palette to.
- Select the speed / resolution of the palette – High Speed or High Quality.
- Be sure to check the box to mirror your print, click 'Print Palette,' and then transfer the palette to the previously selected substrate.
- You now have a visual representation of how the ColorSure palette colors will appear on that particular substrate.

III. Designing Your Artwork

By picking colors from the ColorSure palette, you will be able to consistently reproduce colors in a reliable manner. To assist you in designing your artwork, PowerDriver installs three palettes: two for Adobe products and one for Corel products. These colors match the palette that is printed from within PowerDriver.

- To open the ColorSure Palette in Corel 9, 10, 11 or 12 choose Window | Color Palette | Open Palette. Select the file “ColorSure Pallet Corel”
- To open the ColorSure Palette in Illustrator, choose Window | Swatch Libraries | Other Library. Navigate to where it was installed to when you installed PowerDriver: C:\Program Files\Sawgrass\PowerDriver\Adobe Illustrator and hit Open. *For easier access to the Palette file copy it from this [above] path to Illustrator10\Preset\Swatches and it will show up in your pull-down list directly under the Swatch Libraries menu. Other versions of Illustrator will have similar steps.*
- To open the ColorSure Palette in Adobe PhotoShop, choose the Swatches Palette, click the option arrow on the palette, choose *Replace Swatches* and pick the “ColorSure Palette.aco” file.



HINT

After you have the ColorSure palette loaded into CorelDraw, move the cursor over each color. As the cursor hovers over each different color, the ColorSure name is displayed in the status area below each color.

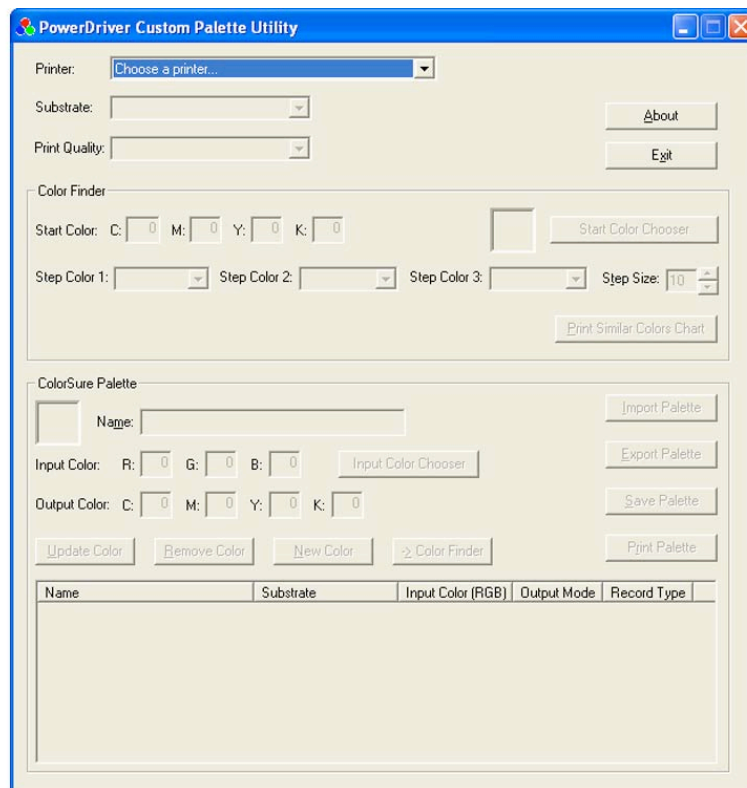
IV. Using Color Finder

After printing and transferring the ColorSure Palette, you see that you have an array of colors to work with. There will be times, however, when the color you need is not included in the ColorSure Palette. This is where the Color Finder tool comes in handy.

The Color Finder tool allows you to start with a specific color (e.g. navy blue) and find similar colors in the same family by adding and subtracting up to three colors (CMYKRB) called ‘Step Colors.’ For example, starting with navy blue with a CMYKRB value of 60,60,0,40,0,0 and choosing two step colors (e.g. cyan and magenta) would expand the original navy blue in four directions (more cyan, less cyan, more magenta, and less magenta). This expanded color chart – specific to a particular substrate and printing speed – is outputted directly to your printer.

How to use Color Finder:

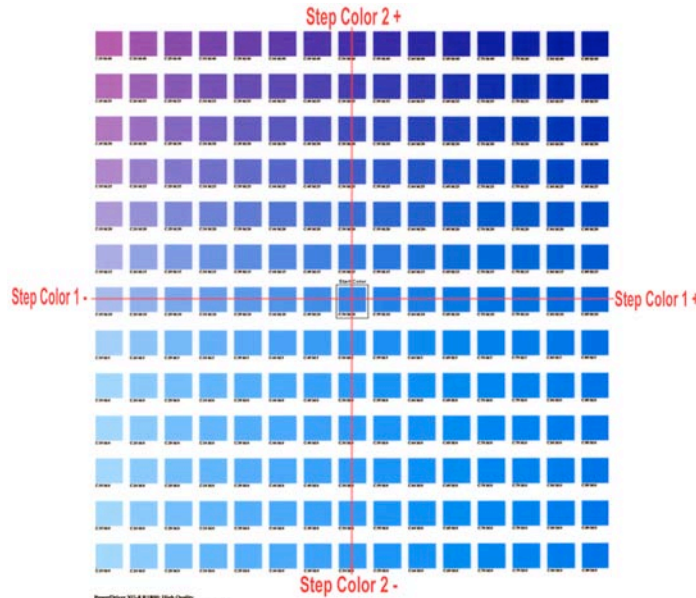
- Open the PowerDriver window as instructed in “Printing the ColorSure Palette” outlined in Section II.
- First, make sure you select your desired **Substrate**, **Output** (High Speed or High Quality), and the **Mirror** option from the Printing Preferences window. Click **Apply** at the bottom of the window. This is a very important step as it will affect the final printed output.
- At the bottom of the window, click the **Custom Palette** button; this will open the **Custom Palette Utility** window.
- Click on **Color Chooser** and select your desired starting color from the matrix. If you do not wish to use Color Chooser, you have the option to manually enter the **Start Color** values in the CMYKRB boxes.
 - To use Color Chooser, simply click on the ‘Color Chooser’ button in the top right of the Custom Palette Utility window. You can then choose a color from the basic color selection, or you can click on the ‘Define Custom Colors’ button at the bottom of the window. This will display a color matrix. To define a custom color, click anywhere in the matrix. Use the slider at the right of the matrix to adjust luminosity. Clicking ‘OK’ will automatically fill the CMYKRB boxes with the corresponding values.
 - For advanced users, CMYKRB values can be determined by printing out a Custom Palette, which is outlined in the next section.



Custom Palette Utility

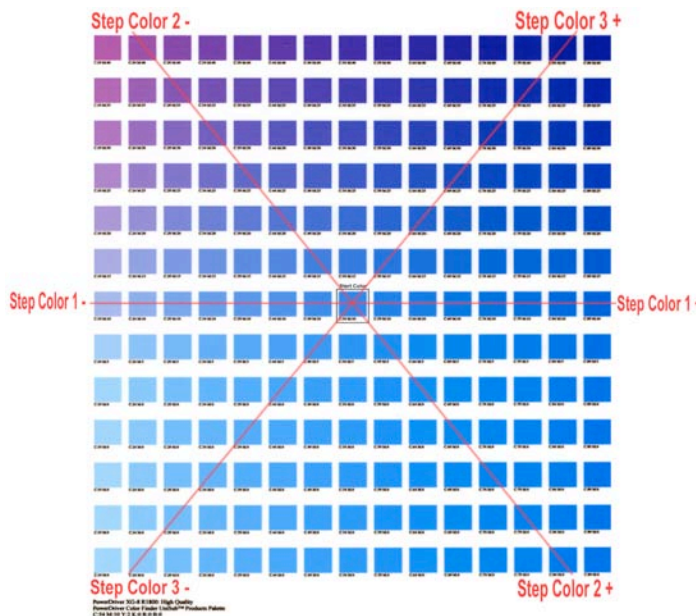
You may alter the chosen color's CMYKRB value by selecting two or three **Step Colors**. Using multiple step colors will present you with a greater range and variety of colors to choose from.

- For instance, if you choose to modify your Start Color with two steps, then Step Color 1 will change its values on the X (horizontal) axis and Step Color 2 will change its values on the Y (vertical) axis.



Color Finder Palette with two Step Colors

- If you modify your Start Color with three steps, Step Color 1 will remain the same. However Step Color 2 and Step Color 3 will form an imaginary 'X' and their values will change on opposing diagonal Y axes.



Color Finder Palette with three Step Colors

- Next, determine what **Step Size** you want to apply to the Color Finder palette. This is simply a question of how much you want your Start Color to fluctuate. If your Start Color is close to the color you are looking for, use a low Step Size (i.e. 5-10). However, if your start color is not close to what you are looking for, use a higher Step Size. You can enter any Step Size value between 1 and 40.
- As an example, let's say your Start Color is C:20, M:100, Y:150, K:0, R:0, B:0 and you select Cyan and Magenta to be your Step Colors. You also enter a Step Size of 10. When the 'Print Colors' button is clicked, your Start Color will be in the middle of the Color Finder palette and from there each color will vary the Cyan and Magenta values by 10.
- When you are finished selecting the Start Color, Step Colors, and the Step Size, click on the **Print Colors** button. This will print your custom Color Finder palette directly to your printer.
- After printing the Color Finder palette, transfer it to your selected substrate and then try to match your desired color to one that is on the palette. If you find a suitable match, you are finished using the Color Finder tool. Move on to **Section V. The Custom Palette**.
- If you couldn't find an accurate match on the first printed Color Finder palette, don't worry. Follow the easy steps below, and you can find a more suitable custom color.
 1. First, try to locate a new Start Color from the palette that is closer than the original color.
 2. Next, after finding a more suitable Start Color, write down that color's CMYKRB value. Here is how to obtain this value. There are numbers under each color that are dependant upon which Step Colors you chose. For example, it might say C:70 M:120. Take note of these values. Then, at the bottom left of the Color Finder palette you will see a full set of CMYKRB values. The new Start Color's CMYKRB value would be C:70, M:120 and whatever the YKRB values are from the full set.
 3. Lastly, plug the CMYKRB values for the new Start Color into the boxes in Color Finder, choose your Step Size, and click on Print Colors once again. Continue with steps 1-3 until you find your desired color.

V. The Custom Palette

Let us assume that you have found the exact color you need using the Color Finder tool. What you will want to do next is apply these custom color values to either an existing palette, or to create a new custom palette altogether. This allows you access to this color again should the same job arise.

How to use Custom Palette:

- First, you need to assign the CMYKRB values of the matched color from the Color Finder palette to the **Output Color** CMYKRB fields in the Custom Palette section.
- Give your new custom color a descriptive **Name** in its designated field (e.g. IBM Blue).
- Next, assign an RGB **Input Color** value. There are two methods to establish this value.

1. If you have the original file, sample the color that was matched in your graphic design application with the eye dropper tool. This will give you the RGB value of that color. Input this value into the RGB Input Color fields of the Custom Palette section.
 2. If you do not have the original file or the artwork has not yet been designed, simply click on the 'Input Color Chooser' button, and then click on "Define Custom Colors". From the color matrix, find a color that closely resembles the color that you are adding to the custom palette. At the bottom-right of the color matrix window are the RGB values. Simply click 'OK' and the RGB Input Color values will be automatically entered. Please take note of these RGB values for later use in your design applications.
- Click the **Add Color** button. A window will pop up asking you whether you want to add the color to the palette for all substrates or just the current substrate. Click 'YES' here unless you have the same custom color saved on palettes for other substrates. Another window will then ask you if you want to save the custom color for all resolutions or just the current one. Click 'YES' here unless you have the same custom color saved on palettes for other resolutions.
 - Lastly, click the **Save Palette** button. When finished, simply Exit out of the window.

** The 'Import Palette' and 'Export Palette' buttons are convenient to have in the event you need to transfer palettes to and from different computers.*

VI. Adding Swatches to your Application Palette:

It is possible to add your custom color(s) swatch to an application palette as well. You will need to take note of the Input Color RGB value that you assigned in the previous step in order to create the new swatch. Refer to your specific design application software's manual for instructions on this.

Tips for Successful Sublimation



POLYESTER FABRIC

Maintain appropriate heat press times.

- Shortened pressing times will result in good surface color but the sublimation dyes will not completely penetrate the polyester fibers. This leaves the dyes more susceptible to wash out.
- Longer pressing times will cause the dye molecules to penetrate deeper into the fiber, creating a washed out look. For guidelines on transfer times, see the section entitled *Heat Transfer Instructions*.

Maintain appropriate heat press temperatures & pressure

- The correct temperature setting is vital for achieving desired results. Higher temperatures can damage the polyester fibers to the point that they cannot properly “hold” the dyes. For guidelines on transfer temperatures, see the section entitled *Heat Transfer Instructions*.
- Too much pressure on the heat press may cause the dyes to penetrate too deeply into the fabric causing a washed out look. For guidelines on transfer pressure see the section entitled *Heat Transfer Instructions*.

METAL

To obtain the best results when printing onto metal, place the transfer between the metal and an absorbent cloth or fresh, non-textured paper towel. This will absorb any dyes that pass back through the paper and any moisture released during the transfer process. If you have problems with inconsistently filled areas, this may alleviate the problem.

CERAMIC TILES & MUGS

When transferring onto ceramic tiles and mugs, immediately peel the paper off of the ceramic after removing it from the heat press. Once the paper has been removed, cool the ceramic by submerging it in cool water, or run water over it from a faucet. If paper residue remains on the surface of the ceramic, clean with citrus cleaner. If you experience a significant paper-sticking problem, call your SubliJet reseller for assistance.

Hanes Soft L’Ink® Shirts

- The presence of moisture in your fabric can lead to bleeding of the image. Remove moisture by pre-pressing your shirt for 10 seconds. Use Teflon sheets between the front and back of the shirt to prevent the inks from penetrating to the other side of the shirt. If dye residue from your heat press is being deposited on your shirts at any time, heat press a paper towel or similar absorbent material to remove it.
- Using a lint brush before pressing can greatly reduce lint or debris on the shirt.

MOISTURE & HUMIDITY PROBLEMS

The addition of moisture to the sublimation process can cause unwanted results. Under normal circumstances, the small amount of moisture that can accumulate in your paper is absorbed directly into the transfer substrate; however hard substrates like metal and ceramic are unable to absorb excess moisture. Some of problems that are attributed to moisture include: color shifting (colors lose accuracy), bleeding of the image, and uneven transfer of solid filled areas

To avoid these problems

- Keep your paper in a dry place.
- If you suspect moisture, set the paper on your press for a few seconds. Do not press it. Just expose it to the warmth. The heat radiating from the press should help evaporate most of the moisture.
- To eliminate moisture in fabric, press the fabric for 10 seconds before doing the heat transfer.
- Use an absorbent cloth or fresh, non-textured paper towel behind the transfer sheet to absorb the moisture.

Supplies & Equipment

Contact your reseller to purchase sublimation supplies and equipment. For more information, see the Sublimation Supplies Directory on our website at www.sawgrassink.com.

Operating Conditions

Certain environmental conditions should be taken into account for the operation of SubliJet IQ™ inks, including temperature and relative humidity.

- Supported Operating Conditions are 65° – 80° F with 40 – 60% relative humidity
- Optimum Operating Conditions are 68° – 75° F with 40 – 60% relative humidity

Storage

- Care should be taken to prevent storing SubliJet below freezing temperatures (32°F, 0°C). Do not expose SubliJet to extreme heat (temperatures in excess of 104°F, 40°C). If SubliJet has been in storage, you should allow it to reach room temperature before using it.
- Do not expose SubliJet cartridges directly to light, especially sunlight, for extended periods.
- For best results, install your SubliJet cartridges by the date on the cartridge. Please refer to the individual ink bag/cartridge for the specific ink expiration date.

Troubleshooting

The troubleshooting tips found in this section relate mainly to problems that can be seen in transferred SubliJet images. If you are having problems related to the performance of your printer, please refer to the *Problem Solving* section found in the *EPSON Stylus Photo 1400/1410 Printer User's Guide*.

The colors in my transferred image are incorrect

- The image may need color adjustment. Use PowerDriver color matching software. For more information on how to use this software, please see the section entitled PowerDriver 1400/1410 IQ User's Guide.
- Ensure you used the right printer driver and driver settings. Please see the section entitled PowerDriver 1400/1410 IQ User's Guide.
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines see the section entitled *Heat Transfer Instructions*.
- Verify all colors print correctly. Run the Nozzle Check utility and clean the print heads as required.

My printout is really light on paper

SubliJet IQ ink naturally looks muted before the heat transferring of the image. After transferring is complete, SubliJet's unique inks will produce a brilliant and durable final product.

My printout gets cut off on the bottom or side

- Verify the printer driver is setup for the correct paper size. Your printer driver setting needs to match the paper size that is loaded in your printer.
- Ensure the right paper guide is in the proper position. When setting up the printer, slide the right paper guide to the left until it clicks into position.

My image looks good but it washes out

- Ensure you pressed the garment with the proper time, temperature, and pressure. If so, try pressing longer to ensure that the dyes are penetrating the fibers sufficiently. For guidelines, see the section entitled *Heat Transfer Instructions*.
- Ensure you used a recommended paper. See the section entitled *Selecting Paper*.
- Ensure your substrate is designed to accept sublimation transfers. Garments made from natural fibers, such as cotton, are not compatible with the sublimation process.

Colors are light and splotchy

- Ensure you printed on the correct side of the paper. The print side is the bright white side of the paper.
- Ensure you used a recommended paper. For more information, see the section entitled *Selecting Paper*.
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled *Heat Transfer Instructions*.
- Verify your printer driver settings are correct. Please see the section entitled PowerDriver 1400/1410 IQ® User's Guide for additional information.
- Ensure you do not have a moisture problem. For more information, see the section entitled *Moisture and Humidity* on the *Tips for Successful Sublimation* page.
- Ensure your substrate is designed to accept a sublimation transfer. Garments made from natural fibers such as Cotton are not compatible with the sublimation process.

My image looks blurred

- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled *Heat Transfer Instructions*.
- Ensure you used a recommended paper. For more information, see the section entitled *Selecting Paper*.
- Ensure you printed on the correct side of the paper. The print side is the bright white side of the paper.
- Ensure you do not have a moisture problem. Try drying the paper on the press or putting a paper towel behind the transfer when you heat press it. Read the section entitled *Moisture and Humidity* on the *Tips for Successful Sublimation* page.
- Verify that the printer's print heads are properly aligned. For further instructions, see the *EPSON Stylus Photo 1400/1410 Printer User's Guide*.

My image has gaps or bands present

- Ensure that all of the printer's nozzles are firing properly. Perform a Nozzle Check from the *Utility* tab of your printer driver. For further instructions, see the *EPSON Stylus Photo 1400/1410 Printer User's Guide*
- If one or more of the nozzles fail to print, perform a Print Head Cleaning. For further instructions, see the *EPSON Stylus Photo 1400/1410 Printer User's Guide*.

Technical Support

If you are having difficulties achieving good results from your SubliJet IQ™ inks, you have several support options:

1. **Telephone:** You may contact your authorized SubliJet reseller during their normal hours of operation for assistance. A full listing of authorized SubliJet Resellers is available on our Web site at www.sawgrassink.com. In addition, you may also contact Sawgrass Technical Support at (888) 253-1679 between the hours of 8:00 AM and 5:30 PM Eastern Standard Time.
2. **Internet:** Visit the **Technical Support** area of the Sawgrass Technologies, Inc. website at www.sawgrassink.com. The troubleshooting utility found here will provide you with solutions to some of the most common problems. You may submit a detailed description of your problem if you need further assistance.
3. **E-mail:** You may e-mail Sawgrass Technical Support with a detailed description of your problem at support@sawgrassink.com.
4. **Fax:** You may fax a detailed description of your problem to Sawgrass Technical Support at (843) 849-3847.

